ing of the statues of Broussais, Bichat and Laennec; and could these masters have chosen one to set forth their works in their best colors, and who would at the same time do strict and impartial justice, they could not have chosen more wisely than did the Academy on these occasions.

It seems peculiarly fitting that the statue which has been raised to his memory should have been the work of an artist, M. Verlet, of his native place. And as it was fitting that Bouillaud should make the orations over the statues of Broussais, Bichat and Laennec, it was appropriate that his pupil Henri Roger should have in the same manner commemorated his works at the unveiling of his statue. In the closing words of his oration: Immortelle sera votre mémoire,

Nulla dies unquàm memori vos eximet ævo.

HÆMORRHAGIC MALARIAL FEVER; PATHOLOGICAL CHANGES IN THE BLOOD AND URINE.

Dr. Jerome Cochrane, of Alabama, in his paper on this subject published in this Journal for May 30th, 1885, has given the results of the analysis of several specimens of the urine from patients laboring under this fever, in which the characteristically dark red urine, which has generally been supposed to contain an abundance of red-blood corpuscles, contained no blood corpuscles whatever. The color was due to the constituents of the blood-corpuscles, chiefly hæmoglobin, without the presence of any non-disintegrated corpuscles in the several specimens of urine examined. The microscopic examinations were made by Dr. Geo. M. Sternberg, U. S. A., and the chemical by Dr. H. Newell Martin, of the Johns Hopkins University. In the same paper Dr. Webb states, in connection with the cases related by him, that in 1875 he sent a specimen of apparently bloody urine from a severe case to Dr. James Tyson, of Philadelphia, for examination. Dr. Tyson reported that the specimen of "urine contained no blood-corpuscles," and that its color was due to hæmatin. But both Dr. Webb and Dr. Tyson then thought the absence of the corpuscles might be owing to their having been dissolved by the alkaline constituents of the urine after it had been voided. This supposition was disproved, however, by several of the specimens examined by Dr. Sternberg, in which he states positively that the urine gave an *acid* reaction.

All the important facts developed by the microscopic and chemical analyses reported in Dr. Cochrane's paper had been previously set forth very clearly in a short paper read to the Macon (Ga.) Medical Society by Dr. H. McHatton, September 2d, 1884, and published in the *Atlanta Medical and Surgical Journal* for October, 1884, pp. 400–1. Dr. McHatton, in giving the details of his examination, both microscopic and chemical, of the urine from a severe case of the malarial hæmaturia, says: "Although the urine was fresh, on repeated examination I could not find a single red or white blood-corpuscle." By chemical tests, he demonstrated the presence of abundance of hæmatin and hæmaglobin, and obtained "characteristic hæmin crystals." The latter he also obtained from a specimen of the matter vomited by the same patient. He adds: "This examination proved most conclusively that whereas the urine contained none of the anatomical elements of the blood, it was loaded with the chemical constituents. In fact it was a case of hæmaglobinuria and not hæmaturia, at the same time showing little or no renal troubles."

The important pathological inference from the facts adduced in the papers of Drs. McHatton and Cochrane is, that the blood in hæmorrhagic malarial fever has undergone such changes as a positive disintegration of its red corpuscles and diffusion of the hæmatine and other constituents into the serum of the blood, from which it is eliminated freely by the kidneys, and also deposited in the cutaneous and other tissues, imparting to them the characteristic hue usually accompanying that disease, there being no true renal hæmorrhage. On the other hand, many of those who have treated cases of this form of disease, state positively that the urine when voided contained undissolved blood-corpuscles. Thus the late Dr. S. M. Bemiss, of New Orleans, in the article on Malarial Fever in the first volume of the American System of Medicine, page 611, relates two cases of what he calls "malarial hæmorrhagic fever," in one of which he says, the "urine was loaded with albumen and showed under the microscope abundant blood-corpuscles;" and in the other that the urine was "loaded with blood." It is plain, therefore, that we need careful microscopic and chemical examinations of the urine immediately after having been voided, in a much larger number of well-authenticated cases of this variety of fever, before we can safely assume that all the essential pathological changes take place in the blood, and that the renal organs are only embarrassed by the effort to eliminate the products of the corpuscular degeneration of that fluid.

BURIED SUTURES.

In the *British Medical Journal*, of May 2, 1885, is a paper by Mr. C. B. Keetly, "On Buried Sutures, with Remarks on the Importance of Suturing Separately, Periosteum to Periosteum, Muscle to

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Muscle, Deep Fascia to Deep Fascia, and Skin to Skin, after Deep Incisions of all Kinds." This is but the practical application in general surgery of the principles upon which fractured bones, divided nerves and tendons, wounds of the veins, intestines and other hollow structures are now treated. But, as Mr. Keetly remarks, these forms of buried sutures have a narrow, and, though a very important, a limited aim; the intestines, for example, being thus sutured in order to prevent extravasation of fæces.

The method now under consideration, however, is intended to "influence the whole course and final result of wounds in general. For instance, let us suppose buried sutures of the first kind to have been used to unite the two ends of a divided nerve; the use of the other kind of buried sutures would now commence, and proceed as follows: Whatever muscles or aponeuroses had been divided in cutting down upon the nerve would be restored to their original relationships, and kept there by aseptic animal sutures, such as carbolized catgut; then the wound in the deep fascia would be separately sewn up. Finally, the wound in the skin would be closed by either catgut or silver, or whatever might be preferred." The advantages claimed for this method are; that the necessity for drainage tubes is obviated. As no spaces or pockets are left in which blood or serum can collect, such collections do not occur; presuming, of course, that all blood-vessels have been carefully secured, and that the wound has been made thoroughly aseptic. The second advantage is that divided muscles and aponeuroses are so accurately sutured that perfect function is soon regained. The same is true of the deep fascia, which in some localities is of primary importance. *Thirdly*, deep, rough, and depressed cicatrices are avoided; and *fourthly*, necrosis of bone and sloughing of soft tissues are prevented.

In support of the practicability and advantages of his method, Mr. Keetly refers to seventeen operations, including two amputations of the thigh, and one of the leg, two excisions of the hip, one of *éridement* of the bones of the knee-joint, one wedge-osteotomy of the hip, one osteotomy of the tibia and fibula, two suturings of fractured patellæ, and one removal of sequestrum in necrosis of the symphysis pubis, with large abscess in the abdominal wall. In all of the seventeen cases, save two, "the buried sutures have done all which sanguine hopes could expect of them." He has also used this method with success in two cases of resection of the quadriceps extensor cruris, which operation, when performed for infantile paralysis with loose knees, Mr. Keetly does not think justifiable without the use of buried sutures. He especially recommends their use in operating on sebaceous cysts of the head. In concluding his paper, he says that it is only in strictly antiseptic surgery that he would venture to recommend the use of these sutures.

INJURIES OF THE MAIN BLOODVESSELS IN THE AXILLA CAUSED BY EFFORTS TO REDUCE DISLOCATIONS OF THE SHOULDER.

Such is the title of a paper by DR. LEWIS A. STIMSON, read before the New York Surgical Society on May 26. The paper is based on a collection of forty-four cases, thirteen of which were fatal without operation, seven (all the cases) of double ligature fatal, six cases of recovery without operation, four cases of disarticulation at the shoulder with three deaths, and fourteen cases of ligature of the subclavian, with eight deaths and one unknown result. In commenting upon these cases Dr. Stimson thinks that it is a fair inference that conservative treatment may properly be tried at first, "but should not be prolonged if the symptoms do not promptly yield; and, secondly, that in case of resort to operation, ligature of the subclavian artery or disarticulation at the shoulder is to be preferred to incision of the sac and double ligature of the artery."

It is especially important to remember that in attempted reduction of these cases of dislocation any rough manipulation whatever should be avoided, and that abduction, circumduction, violent traction and forced pressure in the axilla are especially dangerous. It would seem that incision and liberation of the head of the bone, which has been tried in one case with success, is the preferable procedure in those cases in which conservative measures or gentle manipulation are of no avail. Injuries of the bloodvessels are more liable to occur in proportion to the time that the dislocation has lasted, as the adhesions become very firm. "Even a dislocated arm may be very useful, and the fatality of this accident, more than 70 per cent. of deaths, may well cause the surgeon to hesitate to incur the risk merely for the sake of ameliorating a condition which does not endanger life and is quite compatible with activity and usefulness."

TO SUBSCRIBERS, AND MEMBERS OF THE ASSOCIATION.

The next issue of the JOURNAL will complete the fourth volume and the second year of the publication. That number will contain the official list of members in attendance upon the recent annual meeting of the American Medical Association, in New

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